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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/816,328

03/26/2001

Ko Sano

0925-0167P

8558

2292

7590

02/27/2004

BIRCH STEWART KOLASCH & BIRCH

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EXAMINER

ZIMMERMAN, GLENN

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/816,328

Applicant(s)

SANO ET AL.

Examiner

Glenn Zimmerman

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 15 is/are allowed.
- 6) ☒ Claim(s) 11 and 14 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1203.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

Amendment, filed on December 18, 2003, has been entered and acknowledged by the examiner.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of claim 12 i.e. the evacuation channel structure wherein the display element electrodes are rectangular must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2879

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Amemiya U.S. Patent 6,583,560.

Regarding claim 11, Amemiya discloses a plasma display apparatus **(title)** comprising:

A plurality of display element electrodes **(transparent electrodes Fig. 1 ref. Xa, Xa', Ya, Ya')** each including a pair of rectangular electrode segments with linear edges **(see figure 1)** opposing each other, separated by a gap **(discharge gap ref. g)** of predetermined distance;

A front substrate **(front glass substrate ref. 10)** on which the plurality of display element electrodes are arranged along a row direction and a column direction **(Fig. 1)**;

A barrier structure **(light absorbing layer ref. 15' or white layer ref. 15'')** and dielectric layer **(additional dielectric layer ref. 11A)**, the inner surfaces of which being disposed along one or more of the outer ends of the plurality of display element electrodes **(col. 8 lines 8-12; col. 7 lines 40-53)**, thereby defining the outer shape of a plurality of cells each of which is coated with a phosphor member **(phosphor layer ref. 16)** activated by a discharge of energy from one of the plurality of display element electrodes so as to emit light; and

A back substrate **(back glass substrate Fig. 2 ref. 13)** disposed opposing the front substrate with the barrier structure therebetween.

Regarding claim 14, Amemiya discloses a plasma display apparatus according to claim 11, wherein each of the plurality of cells is provided with a reflecting layer (**white dielectric layer ref. 14**) disposed below the phosphor member.

***Allowable Subject Matter***

Claims 1-10 and 15 are allowed.

Claims 12 and 13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 1, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a plasma display apparatus including the combination of all the limitations as set forth in claim 1, and specifically a plurality of display element electrodes each including a pair of electrode segments with linear edges opposing each other, separated by a gap of predetermined distance, in which the width of each of the electrode segments narrows continuously across the display element electrode segment beginning at the associated one of the linear edges and in a direction away from the linear edges toward a bus electrode to which the display element electrode is connected; a barrier structure, the inner surfaces of which being disposed along the outer ends of the plurality of display element electrodes thereby defining the outer shape of a plurality of cells which narrows continuously in a direction away from the linear edges toward the bus electrode could not be found elsewhere in prior art.

Regarding claims 2-10, claims 2-10 are allowed for the reasons given in claim 1, because of their dependency status on claim 1.

Regarding claim 12, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a plasma display apparatus including the combination of all the limitations as set forth in claim 12, and specifically wherein the barrier structure comprises a plurality of separate units which define each of the plurality of cells so as to provide an evacuation channel structure in between the plurality of separate units could not be found elsewhere in prior art.

Regarding claim 13, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests an plasma display apparatus including the combination of all the limitations as set forth in claim 13, and specifically a plurality of address electrodes each having a linear portion extending along one side of the plurality of cells, the plurality of address electrodes each having a plurality of projection protions disposed so as to face predetermined onf of the pair of electrode segments constituting the associated one of the plurality of display element electrodes could not be found elsewhere in prior art.

Regarding claim 15, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a plasma display including the combination of all the limitations as set forth in claim 15, and specifically a plurality of display element electrodes each including a pair of electrode segments with linear edges opposing each other, separated by a gap of predetermined distance, each of the electrode segments having a portion where the width continuously narrows

Art Unit: 2879

across the electrode segment in the direction away from the associated one of the linear edges toward a bus electrode to which the display element electrode is connected; a barrier structure, the inner surfaces of which being disposed along the outer ends of the plurality of display element electrodes thereby defining the outer shape of a plurality of cells which narrows continuously in a direction away from the linear edges toward the bus electrode could not be found elsewhere in prior art.



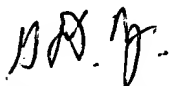
### **Conclusion**

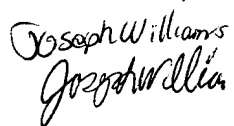
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hashimoto et al. U.S. Patent 6,603,263 discloses an AC Plasma Display Panel, Plasma Display Device and Method of Driving AC Plasma Display Panel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (703) 308-8991. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Glenn D. Zimmerman

  
Joseph Williams